

A LEMON-SCENTED PYCNANTHEMUM (LAMIACEAE)

PAUL D. SØRENSEN
AND
PENNY A. MATEKAITIS

Every botanist with field experience in northeastern North America will agree that the crushed leaves of the mountain mints (*Pycnanthemum* spp.) give off an unmistakable and perhaps unique odor. The odor remains a reliable diagnostic character for plants in the vegetative stages. It was, therefore, with some considerable surprise that we encountered a plant of *Pycnanthemum virginianum* that gave off an odor indistinguishable from that of a squeezed lemon—and not unlike *Melissa officinalis*. A cursory sample of other plants in this population, scattered over ca. 1.5 hectares, revealed several others that gave the citrus odor while the majority still yielded the familiar mountain mintiness. The two odors are so startlingly different and distinctive that we believe it is worthwhile to propose the following intraspecific taxon:

***Pycnanthemum virginianum* f. *citriodora* forma novum.** TYPUS: *Sørensen, Muller, & Matekaitis 7711A*; sandy sphagnous meadow at Pine Rock Preserve, 4 mi E of Oregon, Illinois, along Ill. highway 64; 27 August 1978. (Holotype: DEK!; Isotypes: DEK!)

Omnino *P. virginiani* simile, odore citroso autem differt.

The lemon-scented character occurs among several taxa of the Lamiaceae. We referred above to the Common Balm, *Melissa officinalis*, often called Lemon Balm. One can also cite *Monarda citriodora*, a plant of the southern plains of the U.S. and adjacent Mexico. However, we have found only one other intraspecific taxon representing a lemon-scented variant of an otherwise non-lemon-scented species, notably the common garden herb, *Thymus serpyllum* var. *citriodora*. We describe this new taxon at the rank of *forma* rather than that of *varietas* so as to lay emphasis on the fact that its occurrence so far as we know is limited to a mutation that has taken place in a single population. We have checked at random a token representation of *Pycnanthemum virginianum* populations in northern Illinois without finding a recurrence of the mutation. We welcome information from other workers in the field on whether populations elsewhere exhibit this variability.

Grieve (1931) reports that Prairie Bergamot (*Monarda citriodora*)

yields a citral and a phenol that account for its lemon-scented character. Investigations presently underway on *Pycnanthemum virginianum* f. *citriodora* are planned to reveal 1) the nature of the odor-causing compounds and 2) the genetic system that has brought about the change

LITERATURE CITED

- GRIEVE, M. 1931. A modern herbal. Reprinted edition (1974) Hafner Press. New York. p. 546.

DEPARTMENT OF BIOLOGICAL SCIENCES
NORTHERN ILLINOIS UNIVERSITY
DEKALB, ILLINOIS 60115